

### **REMARKS**

Before addressing the merits of the rejections, a brief description of the relevant technology may be helpful in framing the issues.

The disclosed exemplary systems and methods allow organizational information for a collection of documents to be captured and related to the collection of documents before and/or in real-time as a set of corresponding electronic images are generated. To achieve this, the claimed system operates as the collection of documents is being scanned. As each set of documents is scanned, organizational information is captured such that the relationship between various types of binding elements contained within the set of documents is recorded. As a result, the completed set of electronic images and associated binding information represents an exact replica of the original collection of documents, right down to the staples, paper clips, folders, boxes, or the like. The specification details how an operator may enter organizational information pertaining to a group of documents into the control system before and during the scanning operation. This is in stark contrast to other systems at the time of the invention, where organizational information for a set of documents could only be related to the set of documents after they had been scanned and merged into a database.

Although scanners, copiers, printers, and document management software existed at the time of the invention, these devices were unable to capture organizational information for a series of documents while concurrently scanning the documents. At the time of the invention, capturing organizational information for a set of electronic images which did not already exist was seen as technically unfeasible and/or too costly to attempt. Instead, document management systems traditionally used a batch process, consisting of scanning an entire set of documents in bulk, saving the scanned images to a database, and then manually attempting to associate the entire collection of scanned images back to their original format. The state of the art at the time of the invention is represented by the newly cited Kremer reference (U.S. Patent Pub. No. 2001/0043365) that discloses a system that is only able to manage and edit documents after they have been scanned and saved into a memory device.

**35 U.S.C. §103(a) Rejections**

Claims 1-3, 5-15, 17-24, 27-39, 41-53, 56-64, 67-74, 76, and 78-84 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the U.S. Patent No. 6,115,510 to Koga (the “Koga reference”) in view of multiple references. Specifically:

- Claims 1, 2, 5, 7, 12, 17-19, 24, 27-30, 32, 35, 36, 39, 42-44, 47, 48, 51, 53, 56, 58, 60, 63, 64, 67, 69, 71, 74, 78, 80, and 82 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Koga reference in view of U.S. Patent No. 6,950,203 to Akabane *et al.* (the “Akabane reference”) and U.S. Patent Pub. No. 2003/0197896 to Kremer *et al.* (the “Kremer reference”);
- Claims 3, 14, and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Koga, Akabane, and Kremer references in view of U.S. Patent No. 5,369,733 to Arimoto *et al.* (the “Arimoto reference”);
- Claims 6, 13, 33, 41, 52, and 76 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Koga, Akabane, and Kremer references in view of U.S. Patent No. 6,965,460 to Gann *et al.* (the “Gann reference”);
- Claims 8, 9, 20, and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Koga, Akabane, and Kremer references in further view of the Jiang reference and U.S. Patent No. 5,960,448 to Reichek *et al.* (the “Reichek reference”);
- Claims 10, 11, 22, 23, 37, 38, 49, 50, 61, 62, 72, 73, 83, and 84 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Koga, Akabane, and Kremer references in view of U.S. Patent No. 6,111,659 to Murata (the “Murata reference”); and
- Claims 31, 34, 45, 46, 57, 59, 68, 70, 79, and 81 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Koga, Akabane, and Kremer references in view of U.S. Patent No. 5,848,325 to Matsumura (the “Matsumura reference”).

The office action asserts that it would have been obvious to one skilled in the art at the time of the invention to modify the Koga reference in some fashion to arrive at the present claims. However, in light of the Supreme Court decision in *KSR v. Teleflex*, any obviousness determination must be consistent with the traditional *Graham* factors. Thus, obviousness is determined according to (1) the scope and content of the prior art, (2) the level of ordinary skill in the art, (3) the differences between the prior art and the claimed invention, and (4) the extent of any objective indicia of nonobviousness.

A clear articulation of the reason why the claimed invention would have been obvious is required to support any rejection under 35 U.S.C. § 103. The analysis supporting a rejection under 35 U.S.C. § 103 should be made explicit. MPEP § 2143. Rejections for obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. MPEP § 2142.

In addition, the examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. In the case of independent claims 1, 12, 24, 39, 51, 63, and 74, the office action asserts that the Koga, Akabane, and Kremer references teach all of the limitations claimed. To reject a claim based on this rationale, the office action must resolve the *Graham* factual inquiries. Then, the office action must articulate the following:

- (1) a finding that the prior art included each element claimed, although not necessarily in a single prior art reference, with the only difference between the claimed invention and the prior art being the lack of actual combination of the elements in a single prior art reference;
- (2) a finding that one of ordinary skill in the art could have combined the elements as claimed by known methods, and that in combination, each element merely performs the same function as it does separately;
- (3) a finding that one of ordinary skill in the art would have recognized that the results of the combination were predictable; and
- (4) whatever additional findings based on the *Graham* factual inquiries may be necessary, in view of the facts of the case under consideration, to explain a conclusion of obviousness. MPEP 2143(A).

The rationale to support a conclusion that the claim would have been obvious is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination yielded nothing more than predictable results to one of ordinary skill in the art. *KSR v. Teleflex*, 550 U.S. 398, 415-16 (2007); *Sakraid v. AG Pro, Inc.*, 425 U.S. 273, 282 (1976); *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57, 62-63 (1969); *Great Atlantic & P. Tea Co. v. Supermarket Equipment Corp.*, 340 U.S. 147, 152 (1950). “[I]t can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.” *KSR*, 550 U.S. at 418. If any of these findings cannot be made, then this rationale cannot be used to support a conclusion that the claim would have been obvious to one of ordinary skill in the art. MPEP § 2143(A). In the present case, the office action fails to fulfill several of these criteria with respect to the various claims. Therefore, the applicants respectfully traverse each of the rejections of the claims under 35 U.S.C. § 103(a), and because the rejections cannot be sustained, the applicants submit that the rejections should be withdrawn.

The cited references fail to disclose the claimed elements and limitations

The prior art reference when modified still must teach or suggest all the limitations of the rejected claim. The 35 U.S.C. § 103 obviousness rejections of these claims are thus inappropriate because one does not arrive at the present invention as recited in the claims by modifying the Koga reference with any of the additionally cited references.

The Koga, Akabane, and Kremer references

The office action asserts that the Koga, Akabane, and Kremer references collectively disclose all of the elements of independent claims 1, 12, 24, 39, 51, 63, and 74. In support of the rejections of independent claims 1, 12, 24, 39, 51, 63, and 74, the office action asserts that the Kremer reference discloses a “sequence location of a binding element” because “the location of the binding element within a set of pages is performed”

and the “user is able to set page features for any of the pages in a document.” The applicants respectfully traverse these rejections.

Independent claim 1, as amended, requires that the control system be configured to:

[S]tore the electronic images and a set of binding information for the collection of documents as a digital representation of the collection of documents in a long-term memory concurrently with the generation of the electronic images, wherein the set of binding information includes: a sequence location of a binding element in the series of documents; and a type of the binding element; and  
an interface linked to the scanner and the control system, wherein the interface is configured to allow the user to: enter a beginning sequence location for the binding element prior to the generation of the electronic images; and enter an ending sequence location for the binding element after the electronic images have been generated.

(emphasis added). Although the Kremer reference discloses associating a selection of page features to a set of selected pages, this is done after the pages have been scanned and saved into a document library and not concurrently with or prior to the generation of the electronic images. The Kremer reference specifically states that it is only after the “documents are loaded into the workflow management software” that the system is able to “perform value added services and prepare the documents for production.” (See ¶ [0042] of the Kremer reference). The Kremer reference further details how documents must be scanned and “converted into a common file format” before the documents can be edited or printed by a print shop. (See ¶ [0026] of the Kremer reference).

Similarly, the Koga reference discloses selecting a location for a staple to be placed on the face of a document after the images have been scanned. The Akabane reference is completely silent as to a sequence location for a binding element and is similar to the Koga reference in that it merely discloses where on the face of a document a staple should be placed. The applicants further submit that merely selecting the location where a staple is to be placed on the face of a photocopied document is not the same as storing binding information pertaining to a sequence location for a particular type of binding element within a collection of documents. Therefore, even if the Koga

and/or the Akabane reference disclosed where to position a staple prior to copying a collection of documents, this is substantially different than what is claimed.

Independent claims 12, 39, 51, 63, and 74 have also been amended to more distinctly recite similar limitations as independent claim 1. Each of these amendments is fully supported by both the claims as originally filed and by the applicants' specification at paragraphs [0023] and [0038]-[0045].

The applicants respectfully submit that since neither the Koga, Akabane, nor Kremer reference discloses capturing information relating to the sequence location of a binding element concurrently when the documents are scanned, the cited references cannot support a *prima facie* case of obviousness, and the rejections of claims 1, 2, 5, 7, 12, 17-19, 24, 27-30, 32, 35, 36, 39, 42-44, 47, 48, 51, 53, 56, 58, 60, 63, 64, 67, 69, 71, 74, 78, 80, and 82 are improper and should be withdrawn.

The Koga, Akabane, Kremer, and Murata references

The office action asserts that the Koga, Akabane, and Kremer references disclose each of the limitations of claims 10, 11, 22, 23, 37, 38, 49, 50, 61, 62, 72, 73, 83, and 84 except for storing a viewer program on the medium. The office action then states that the Murata reference discloses such a limitation, and when viewed in combination with the Koga, Akabane, and Kremer references, it would have been obvious to one of ordinary skill in the art to include the feature of storing a viewer program on a medium. The applicants respectfully traverse these rejections.

The office action states that the Murata reference teaches "a storage medium that is used to store both image data that is scanned and control data that is a program that allows a user to use the image reader in the system from the personal computer." However, contrary to the assertion by the office action, the Murata reference merely discloses a method for obtaining images offline from the digital copying machine by loading a removable storage medium with "read function information." (See Figure 3 of the Murata reference). The removable storage medium is then loaded on a personal computer which has already been preloaded with digital copy machine software. (See col. 7, lines 2-7 and col. 10, lines 47-56] of the Murata reference). The "read function

information” is then used to save an image file from the PC to the medium for later use as a “scan job” on the digital copy machine. (See col. 11, lines 9-47 of the Murata reference).

Clearly, this is not a viewer program as claimed and further defined by the applicants’ specification. Rather, the Murata reference discloses a way to create a print file from an image stored on a PC. Furthermore, the Murata reference explicitly states that the PC has been preloaded with software compatible with the digital copy machine. (See col. 10, lines 50-53 of the Murata reference). Therefore, since the limitation of storing “a viewer program on the medium” as recited in claims 10, 11, 22, 23, 37, 38, 49, 50, 61, 62, 72, 73, 83, and 84 is not found in any of the cited references, the rejections of the claims cannot be supported and should be withdrawn.

The office action provides no valid finding that one of ordinary skill in the art could have combined the elements as claimed by known methods such that each element merely performs the same function as it does separately

To support the rejections, the office action must include a finding that (1) one of ordinary skill in the art could have combined the elements as claimed by known methods, and (2) that in combination, each element merely performs the same function as it does separately. However, as noted above, the system disclosed by the Murata reference merely discloses saving “read function information” to a removable storage medium. A storage medium containing information that allows the contents of the storage medium to be read either on a computer already loaded with an appropriate software package or by a digital printing machine is an inherently different function than the “viewer program” of the present claims.

The office action fails to provide a valid line of reasoning why it would have been obvious to one of ordinary skill in the art to modify the references to arrive at the claimed invention

The office action fails to provide a valid motivation or suggestion based on the available cited references that would lead one skilled in the art to arrive at the claimed invention. To support a finding of obviousness, the cited references must expressly or

impliedly suggest the claimed invention or the examiner must provide a convincing line of reasoning as to why the claimed invention would have been obvious to one skilled in the art. Reliance upon the knowledge of the person of ordinary skill in the art is not sufficient without that knowledge being instantly and unquestionably demonstrable as being well-known. MPEP § 2144.03(A). Reliance on such “common knowledge” without greater support is specifically prohibited:

A statement that modifications of the prior art to meet the claimed invention would have been “well within the ordinary skill of the art at the time the claimed invention was made” because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references.

*Ex Parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App & Inter. 1993). “There must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR v. Teleflex*, 550 U.S. 398, 418 (2007). Further, “a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *Id.* It is important for the office action “to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.” *Id.* Additionally, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. MPEP § 2143.01(VI).

The office action contends that one skilled in the art would be motivated to combine the Koga and Akabana references with the teachings of the Kremer reference for the purpose of storing a sequence location of a binding element. Since none of the references explicitly or implicitly suggest the claimed limitations, including storing a sequence location for a binding element concurrently with the generation of electronic images, the office action must provide a valid line of reasoning why it would have been obvious to one of ordinary skill in the art to modify the references as suggested in the office action.



The office action, however, has failed to provide the requisite line of reasoning to suggest why one of ordinary skill in the art at the time of the invention would have been motivated to do what the applicants have done. Specifically, the office action has failed to indicate how the combination of references suggest doing what is claimed when the only cited reference that discloses applying binding options for “selected pages” specifically requires that the documents comprising the selected pages be “loaded into the workflow management software” before they can be prepared for production. This inherently requires that the documents have already been scanned and saved in some manner such that they may then be loaded into a software program. (See ¶¶ [0042] and [0045] of the Kremer reference). The Kremer reference explicitly states that “job preparation 106 may include scanning the documents and creating a faithful and error free electronic reproduction. The documents, once in electronic form, must also be distilled down or converted into a common file format that the print shop can use to both edit and print the documents.” (See ¶ [0026] of the Kremer reference). The applicants respectfully submit that one of ordinary skill in the art would not be motivated by the teachings of the Kremer reference to modify the Koga and Akabane references as suggested in the office action when the Kremer reference requires that the scanned documents be saved and converted into a different format prior to being able to edit the scanned documents.

Furthermore, modifying the Kremer reference as suggested by the office action would alter its principle of operation. Specifically, the system disclosed in the Kremer reference requires a saved file before it can perform any of the “value added” features of the workflow management software. The applicants submit that a saved file can only be created after the documents have been scanned. Additionally, the fact that a document management system was in existence at the time of the invention or that it is in the “same field of endeavor” does not prove obviousness on its own. It is still necessary that the office action provide the “articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR*, 550 U.S. at 418.

Therefore, the applicants submit that because a *prima facie* case of obviousness has not been established, the rejections of the claims cannot be supported. Accordingly, the applicants respectfully request that the rejections of the claims be withdrawn.

The office action relies on hindsight to support the rejections

The office action's assertion that it would have been "obvious to one having ordinary skill in the art at the time of the invention" is merely a statement of conclusion and the office action provides no articulated reason why one of ordinary skill in the art would choose to configure a copy machine in the manner of the present invention. The applicants submit that, in view of the shortcomings of the cited references, the conclusions of the office action can only be reached through the impermissible use of hindsight. The claimed invention is not simply a "predictable use of prior art elements according to their established functions," and the office action provides no objective reason to combine their respective teachings to arrive at the claimed invention. "A factfinder should be aware ... of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning." *KSR*, 550 U.S. at 421. Hindsight reasoning is proper if it is only taking into account "knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure." *In re McLaughlin*, 443 F.2d 1392 (CCPA 1971).

In the present case, the office action relies on the applicants' disclosure and/or hindsight to support the obviousness rejections. The office action asserts that modifying a copy machine that staples a series of printed documents to save the sequential location of the staple on the document to a long term memory would have been obvious at the time the invention was made despite clear shortcomings in each of the cited references. This is clearly inappropriate, as "the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure." MPEP § 2143. Because the office action cannot

support the rejection without relying on the applicants' disclosure and/or hindsight, the rejections are improper and should be withdrawn.


Therefore, the applicants respectfully submit that the Koga, Akabane, and Kremer references do not render the claimed invention obvious because they do not disclose all of the limitations of independent claims 1, 12, 24, 39, 51, 63, and 74. The claimed elements do not merely perform the same functions as they would separately in the cited references, nor do the references provide any motivation to modify the system of the Koga reference with the teachings of the Akabane, Kremer, Arimoto, Gann, Matsumura, Murata, or Reichel references to arrive at the claimed invention. The applicants, therefore, respectfully traverse the rejections and accordingly request that the rejections of the claims be reconsidered and withdrawn.

#### CONCLUSION

Please consider the amendments and remarks. In view of the present amendments and comments, the applicants respectfully submit that the claims are in condition for allowance. Please contact the undersigned attorney at the address and telephone number noted below with any questions or comments.

Respectfully submitted,

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